

Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1-13. (Cancelled)

14. (Presently Amended) An method for addition of a heterocyclic compound or an aldehyde to an active-hydrogen-containing compound, comprising the steps of
activating an active-hydrogen-containing compound with a polymer gel having a swell ratio of not less than 2 and comprising a cyclic amine structure or a cyclic quaternary ammonium salt structure in the main chain of the polymer in the presence of a heterocyclic compound or an aldehyde under conditions conducive to the addition of the heterocyclic compound or the aldehyde to the active-hydrogen-containing compound.

15. (Previously Presented) The addition method of claim 14, wherein:
the active-hydrogen-containing compound is a compound selected from the group consisting of phenols, amides, alcohols, and carboxylic acids; and
the heterocyclic compound is an oxirane compound.

16. (Previously Presented) The addition method of claim 14, wherein the polymer gel has a three-dimensional network structure holding solvent inside thereof and also has active sites for activating the active-hydrogen-containing compound inside the three-dimensional network structure and/or on the surface thereof.

17. (Previously Presented) The addition method of claim 14, wherein the cyclic amine structure or the cyclic quaternary ammonium salt structure in the polymer gel is derived from at least one selected from the group consisting of *N,N,N*-triallylamines, *N,N*-diallylamines, and diallyldimethylammonium chlorides.

18. (Cancelled).

19. (Previously Presented) The addition method of claim 14, wherein the polymer gel has a thermal decomposition temperature, that is, a heat-absorption peak temperature on a TG-DTA curve obtained when the polymer gel is heated at a rate of 5°C/min in a nitrogen gas flow, of not less than 300 °C.

20. (Cancelled).

21. (Previously Presented) The addition method of claim 14, wherein:
the active-hydrogen-containing compound is (meth)acrylic acid and the heterocyclic compound is an oxirane compound, and
the (meth)acrylic acid is activated with the polymer gel under conditions conducive to the addition of the oxirane compound to the (meth)acrylic acid, so as to form a hydroxyalkyl(meth)acrylate.

22. (Previously Presented) The method of claim 14, wherein the active-hydrogen-containing compound is a carboxylic acid.

23. (Previously Presented) The method of claim 14, wherein the active-hydrogen-containing compound is an unsaturated carboxylic acid.

24. (Previously Presented) The method of claim 14, wherein the active-hydrogen-containing compound is acrylic acid.

25. (Withdrawn) The method of claim 14, wherein the active-hydrogen-containing compound is a phenol or a derivative thereof.

26. (Previously Presented) The method of claim 14, wherein the heterocyclic compound is an oxirane.
27. (Previously Presented) The method of claim 14, wherein the heterocyclic compound is ethylene oxide.
28. (Previously Presented) The method of claim 14, wherein the polymer gel is a copolymer of N,N-diallylamine hydrochloride and N,N,N-triallylamine hydrochloride.
29. (Previously Presented) The method of claim 14, wherein
the active-hydrogen-containing compound is acrylic acid;
the heterocyclic compound is ethylene oxide; and
the polymer gel is a copolymer of N,N-diallylamine hydrochloride and N,N,N-triallylamine hydrochloride.
30. (New) The addition method of claim 14, wherein the polymer gel has a ratio of swell in a range of 2.5 to 10.
31. (New) The addition method of claim 14, wherein the polymer gel has a ratio of swell in a range of 3 to 8.